

WHAT IS CLAIMED:

1. An asynchronous transfer mode (ATM) based distributed virtual tandem switching system, comprising:

a centralized control and signaling interworking function (CS-IWF) device centrally serving a plurality of trunk inter-working function (T-IWF) devices, the CS-IWF device performing call control functions, providing a single connection between a narrowband signaling network and an ATM switching network, and interfacing narrowband and broadband signaling for call processing and control within the ATM switching network.

2. The ATM based distributed virtual tandem switching system of claim 1, in which the narrowband signaling is SS7 signaling.

3. The ATM based distributed virtual tandem switching system of claim 1, in which the broadband signaling is PNNI.

4. The ATM based distributed virtual tandem switching system of claim 1, in which the broadband signaling is B-ISUP.

5. The ATM based distributed virtual tandem switching system of claim 1, in which the broadband signaling is UNI.

6. The ATM based distributed virtual tandem switching of claim 1, wherein the CS-IWF device dynamically facilitates setting up an individual switched virtual connection in the ATM switching network.

7. A method for transporting voice across an asynchronous transfer mode (ATM) network, the method comprising:

receiving narrowband signaling at a centralized control and signaling interworking function (CS-IWF) device;

converting between narrowband signaling and broadband signaling for call processing and control within the ATM network; and

forwarded the broadband signaling from the CS-IWF device to the ATM network.

8. The ATM based distributed virtual tandem switching method of claim 7, in which the narrowband signaling is SS7 signaling.

9. The ATM based distributed virtual tandem switching method of claim 7, in which the broadband signaling is PNNI.

10. The ATM based distributed virtual tandem switching method of claim 7, in which the broadband signaling is B-ISUP.

11. The ATM based distributed virtual tandem switching method of claim 7, in which the broadband signaling is UNI.

12. The ATM based distributed virtual tandem method of claim 7, further comprising dynamically setting up an individual switched virtual connection in the ATM switching network.

13. A computer readable medium storing a program for transporting voice across an asynchronous transfer mode (ATM) network, comprising:

a receiving source code segment that receives narrowband signaling at a centralized control and signaling interworking function (CS-IWF) device;

a converting source code segment that converts between narrowband signaling and broadband signaling for call processing and control within the ATM network; and  
a forwarding source code segment that forwards the broadband signaling from the CS-IWF device to the ATM network.

14. The computer readable medium of claim 13, in which the narrowband signaling comprises SS7 signaling.

15. The computer readable medium of claim 13, in which the broadband signaling comprises PNNI.

16. The computer readable medium of claim 13, in which the broadband signaling comprises B-ISUP.

17. The computer readable medium of claim 13, in which the broadband signaling comprises UNI.

18. The computer readable medium of claim 13, further comprising a switched virtual connection source code segment that dynamically sets up an individual switched virtual connection in the ATM switching network.

19. An asynchronous transfer mode (ATM) distributed virtual tandem switch including a first trunk inter-working function (T-IWF) device that converts trunks from end office switches to ATM cells, and a second trunk inter-working function (T-IWF) device that converts ATM cells to trunks for end office switches, comprising:

a centralized control and signaling inter-working function (CS-IWF) device that performs call control functions and converts between narrowband and broadband signaling for call processing and control within an ATM switching network;

wherein telephone calls originating and terminating within an advanced intelligent network are transmitted through the ATM switching network.

20. The ATM distributed virtual tandem switch of claim 19, wherein individual switched virtual connections are provided that dynamically set up the ATM switching network.

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